PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Masao Fukuda, et al.

Attorney Docket No.: ISHDP165D1

Application No.: 09/996,624

Examiner: C. Harmon

Filed: November 28, 2001

Group: 3721

Title: PACKAGING MACHINE

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on January 27, 2003.

Signed: Deborah Neill
Deborah Neill

TRANSMITTAL OF REVISED APPEAL BRIEF
(37 CFR 192)

Commissioner for Patents
Box: Board of Patent Appeals & Interferences
Washington, DC 20231

Sir:

This revised appeal brief is being submitted in response to the Office Communication dated January 6, 2003.

☒ Charge any additional fees or credit any overpayment to Deposit Account No. 500388, (Order No. ISHDP165D1). Two copies of this transmittal are enclosed.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

Keiichi Nishimura
Reg. No. 29,093

P.O. Box 778
Berkeley, CA 94704-0778
(510) 843-6200

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Masao Fukuda, et al.

Application No.: 09/996,624

Filed: November 28, 2001

Title: PACKAGING MACHINE

Attorney Docket No.: ISHD P165D1

Examiner: C. Harmon

Group: 3721

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231, on January 27, 2003.

Signed: Deborah Neill

Deborah Neill

APPELLANTS' BRIEF PURSUANT TO 37 CFR 1.192

Sir:

This brief, transmitted herewith in triplicate, is in furtherance of the Notice of Appeal mailed in the above-referenced application on October 14, 2002. The fees required under 37 C.F.R. 1.17(f) and any other fees required for filing are enclosed.

This brief contains pursuant to 37 C.F.R. 1.192(c) the items under the following headings and in the order set forth below:

I Real Party in Interest
II Related Appeals and Interferences
III Status of Claims
IV Status of Amendments
V Summary of Invention
VI Issues
VII Grouping of Claims
VIII Arguments
IX Appendix of Claims Involved in the Appeal

I. Real Party in Interest

The real party in interest of this application and of this appeal is:

ISHIDA CO., LTD., which is a Japanese corporation doing business at 44 Sanno-cho, Shogoin, Sakyo-ku, Kyoto, Japan and is the assignee in entire rights to this application.

II. Related Appeals and Interferences

There are no other appeals or interferences known to appellant, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

This application was filed as a divisional application with five (5) claims of which one (1) was an independent claim (claim 1). Claims 6-17 in the parent application were thereby cancelled.

Claims 1-5 were rejected in an office action dated February 27, 2002. In applicant's response, claim 2 was amended and became an independent claim and new dependent claims 18-20 were added.

Claims 1-5 and 18-20 were rejected in a final office action dated July 19, 2002, and an appeal brief was mailed on October 14, 2002.

The status of the claims as set in said final action was and is as follows:

allowed claims	--- none
claims objected to	--- none
cancelled claims	--- 6-17
claims rejected	--- 1-5 and 18-20

IV. Status of Amendments

None of claims 1-5 and 18-20 has been amended.

The claims as set out in the Appendix are the claims as currently pending.

V. Summary of Invention

This invention is in the technical field of form-fill-seal type packaging machines having a heater unit for longitudinally sealing overlapping side edge portions of an elongated bag-making material. As shown in Figs. 1, 2 and 3 of the specification, a packaging machine 1 of this type has a cylindrical chute 4, a former 3 for bending an elongated bag-making film material into a tubular form around this chute 4 such that its side edges will overlap, and a heater unit 50 for longitudinally sealing these overlapped side edges of the film. A heater driving means 70 causes the heater unit 50 to undergo a relatively larger-scaled motion from a retracted position away from the chute 4 to a sealing position at which the heater unit 50 contacts the film. While the heater unit 50 is at this sealing position, the compressive pressure applied by the heater unit 50 to the film around the chute 4 is controlled by an air cylinder 66 (page 8, lines 5-8 of the specification). The pressure of air supplied to this air cylinder 66 is regulated to be at a specified relatively lower level by a pressure regulating means 101 controlled by a controller 105 (Fig. 8).

VI. Issues

In the aforementioned final office action dated July 19, 2002 (hereinafter simply "the Final Office Action"), claims 1, 2, 4, 5, 19 and 20 were rejected under 35 U.S.C. 102 as being anticipated by Fukuda (US 5,125,217) (hereinafter "Fukuda 217"), the Examiner stating that Fukuda 217 discloses an air cylinder 78 for controlling the compressive force of the heater unit 55 and film S.

ISSUE 1: DOES FUKUDA 217 DISCLOSE AN AIR CYLINDER FOR CONTROLLING THE COMPRESSIVE FORCE OF THE HEATER UNIT AND FILM?

In said Final Office Action, claims 3 and 18 were rejected under 35 U.S.C. 103 as being obvious over aforementioned Fukuda 217, the Examiner stating that it would have been obvious to substitute the "additional air cylinder" in the rejected claims with the screw axis 59 of Fukuda 217 for assisting in the movement of the heater 55 because it is stated in Fukuda 217 that "different combinations of motion-communicating and torque-communicating means can be substituted" (column 8, lines 34-36).

ISSUE 2: WOULD IT HAVE BEEN OBVIOUS TO SUBSTITUTE THE "ADDITIONAL AIR CYLINDER" IN THE REJECTED CLAIMS WITH THE SCREW AXIS 59 OF FUKUDA 217?

In said Final Office Action, claims 2, 19 and 20 were rejected under 35 U.S.C. 103 as being obvious over Fukuda (217) in view of Fukuda (US 5,743,066) (hereinafter Fukuda 066), the Examiner summarizing what Fukuda 066 discloses in column 2 at lines 60-65.

ISSUE 3: CAN FUKUDA 217 AND FUKUDA 066 TOGETHER PREDICATE THE EXAMINER'S REJECTION ON THE OBVIOUSNESS GROUND?

VII. Grouping of Claims

It is Applicant's intention that all claims 1-5 and 18-20 stand or fall together, as far as the reason of rejection stated in the Final Office Action is concerned.

VIII. Arguments

ISSUE 1: DOES FUKUDA 217 DISCLOSE AN AIR CYLINDER FOR CONTROLLING THE COMPRESSIVE FORCE OF THE HEATER UNIT AND FILM?

It is the air cylinder shown at 78 in Fukuda 217 that is at issue. The functions of this air cylinder 78 are described in Fukuda 217 as being "to remove the vertical-seal belt 55 away from the film material S" (column 8 at lines 17-18) and such that "the vertical-seal belt 55 is made to

contact the film material S again" (column 8 at lines 22 and 23). Nowhere else in Fukuda 217 is the function of the air cylinder 78 described. In other words, since the air cylinder 78 is caused to come into contact with the vertical-seal belt 55, it may be concluded that a certain pressure will necessarily be thereby applied to the vertical-seal belt 55, it is not disclosed or even hinted at that the air cylinder 78 is thereafter controlled to apply a specified pressure on the vertical-seal belt 55. Thus, the Examiner's allegation that the air cylinder 78 is said to be "for controlling the compressive force of the heater unit 55 and film S" (lines 6-7 in Paragraph 2 of the Final Office Action) is false and incorrect.

ISSUE 2: WOULD IT HAVE BEEN OBVIOUS TO SUBSTITUTE THE "ADDITIONAL AIR CYLINDER" IN THE REJECTED CLAIMS WITH THE SCREW AXIS 59 OF FUKUDA 217?

The Examiner cited Fukuda 217 as stating that "different combinations of motion-communicating and torque-communicating means can be substituted" (column 8, lines 34-36) but this statement was not made as a comprehensive general statement but was made in connection with Figs. 5 and 8 (column 8, lines 31-32). Since neither Fig. 5 nor 8 discloses any means for controlling the pressure on the vertical-seal belt 55, it should be clear that the motion-communicating and the torque-communicating means in the cited statement refer to means for starting the motion against the resistive forces, not to any means for controlling the pressure on the vertical-seal belt 55. With the cited statement thus interpreted correctly, the Examiner's subsequent allegation in the Final Office Action regarding the replacement of the screw axis 59 of Fukuda 217 cannot logically follow. Moreover, it should be noted that the screw axis 59 is arranged to operate in combination with the turnbuckle 46 because the two gears (unnumbered but shown immediately below the servo motor 45 in Fig. 8) for causing the motion of the screw axis 59 and the turnbuckle 46 are engaged to each other. It is extremely difficult to believe that any person skilled in the art would find the Examiner's suggestion to be reasonable or feasible

and would even think of replacing the screw axis 59 of Fig. 8 with an air cylinder while the turnbuckle 46 is left in the way it is.

ISSUE 3: CAN FUKUDA 217 AND FUKUDA 066 TOGETHER PREDICATE THE EXAMINER'S REJECTION ON THE OBVIOUSNESS GROUND?

As discussed above regarding Issue 1, Fukuda 217 does not disclose any means that can be said to apply a specified pressure on the vertical-seal belt 55. Fukuda 066 was cited by the Examiner merely for disclosing the heater moving cylinder 5 and recognizing controlling the functions of the longitudinal sealer by taking into consideration the bag thickness and inputting corresponding data to an input/control means (lines 3-6 of Paragraph 5 of the Final Office Action). Fukuda 066 does not disclose (and the Examiner correctly refrains from saying that Fukuda 066 does disclose) any means that can be said to apply a specified pressure on the vertical-seal belt 55. Thus, these two references, even if considered together in combination, would not predicate the Examiner's rejection on the obviousness ground because rejected claims 2, 19 and 20 all include, as an essential inventive element, an air cylinder for controlling the compressive force of the heater unit, while neither of these cited references discloses or even hints at any air cylinder that is said to control the compressive force of the heater unit.

CONCLUSION

ISSUE 1 indicates that Fukuda 217 does not disclose or even hint at any air cylinder that controls the compressive force of the heater unit and hence that the Examiner was wrong in his allegation.

ISSUE 2 indicates that it should be deemed unthinkable to replace the screw axis 59 in Fig. 8 of Fukuda 217 with an additional air cylinder as suggested by the Examiner and that the statement in Fukuda 217 in column at lines 32-36 should be correctly interpreted in a proper

context as relating only to large-scale movements, not to the controlling of the compressive force on the vertical-seal belt.

ISSUE 3 indicates that the two cited references cannot predicate the Examiner's rejection even if considered together in combination.

Rejection of claims 1-5 and 18-20 should be reversed.

Respectfully submitted,

Dated: January 27, 2003

Keiichi Nishimura (Reg. No. 29,093)
BEYER, WEAVER & THOMAS, LLP
2030 Addison Street, Seventh Floor
Berkeley, California 94704

Telephone: (510) 843-6200
Facsimile: (510) 843-6203

Atty. Docket: ISHD P165D1

IX. Appendix of Claims Involved in the Appeal

1. A packaging machine comprising:

a cylindrical chute;

means for bending an elongated bag-making film into a tubular form around said chute by mutually overlapping side edges of said film;

a heater unit for longitudinally sealing said mutually overlapping side edges of said film;

heater driving means for moving said heater unit between a sealing position at which said heater unit contacts said film and a retracted position at which said heater unit is separated from said chute; and

an air cylinder for controlling compressive force with which said heater unit at said sealing position compresses said film against said chute by having air of a specified pressure supplied thereto.

2. A packaging machine comprising:

a cylindrical chute;

means for bending an elongated bag-making film into a tubular form around said chute by mutually overlapping side edges of said film;

a heater unit for longitudinally sealing said mutually overlapping side edges of said film;

heater driving means for moving said heater unit between a sealing position at which said heater unit contacts said film and a retracted position at which said heater unit is separated from said chute;

an air cylinder for controlling compressive force with which said heater unit at said sealing position compresses said film against said chute by having air of a specified pressure supplied thereto;

pressure regulating means for regulating air pressure supplied to said air cylinder to a specified pressure level; and

a controller for controllingly varying said specified pressure level.

3. The packaging machine of claim 1 wherein said heater driving means includes another air cylinder.

4. The packaging machine of claim 1 further comprising a support unit which supports said heater unit and is slidable towards and away from said chute, said heater driving

means operating to move said heater unit between said sealing position and said retracted position by moving said support unit, said air cylinder acting only on said heater unit to control said compressive force.

5. The packaging machine of claim 4 further comprising support unit moving means for moving said support unit between a work area which includes both said sealing position and said retracted position and a non-working area which is farther away from said chute than said work area.

18. The packaging machine of claim 2 wherein said heater driving means includes another air cylinder.

19. The packaging machine of claim 2 further comprising a support unit which supports said heater unit and is slidable towards and away from said chute, said heater driving means operating to move said heater unit between said sealing position and said retracted position by moving said support unit, said air cylinder acting only on said heater unit to control said compressive force.

20. The packaging machine of claim 19 further comprising support unit moving means for moving said support unit between a work area which includes both said sealing position and said retracted position and a non-working area which is farther away from said chute than said work area.